



GAIL FARBER, Director

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

900 SOUTH FREMONT AVENUE
ALHAMBRA, CALIFORNIA 91803-1331
Telephone: (626) 458-5100
<http://dpw.lacounty.gov>

ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

May 28, 2014

IN REPLY PLEASE

REFER TO FILE: **SM-1**

Ms. Maryam Babaki
Director of Public Works and Development Services
City of Commerce
2535 Commerce Way
Commerce, CA 90040

Attention Mr. Nasser Shoushtarian

Dear Ms. Babaki:

**CONSOLIDATED SEWER MAINTENANCE DISTRICT
CONDITION ASSESSMENT PROGRAM REPORT
PROJECT NO. Y0TV1011A**

This letter is to inform you that as part of the Sewer Condition Assessment Program, the County of Los Angeles Department of Public Works Consolidated Sewer Maintenance District has completed the closed-circuit television inspection of 54,684 feet or 20.9 percent of the City of Commerce's sewer system.

The enclosed report outlines the structural and maintenance ratings of your system based on the Pipeline Assessment and Certification Program's (PACP Version 6.0.1) rating methodology. Included in the report are the following:

- Condition Assessment Report
- Project Overview Map (Enclosure 1)
- Quick Maintenance Rating Report Priority List and Quick Maintenance Rating Map (Enclosure 2)
- High Water Levels List and Map (Enclosure 2)
- Quick Structural Rating Report Priority List, Quick Structural Rating Map, and Lining and Point Repair Projects Map (Enclosure 3)
- Infrastructure Inspection Reports for Grades 4 and 5 (Enclosure 4)

Ms. Maryam Babaki
May 28, 2014
Page 2

The Condition Assessment Report provides details regarding the maintenance and structural condition of your City's sewer mainlines. This information should be included in your agency's Sewer System Management Plan as a reference in Chapter 8.0 System Evaluation and Capacity Assurance Plan. The segments with critical maintenance issues have been cleaned and, where appropriate, incorporated into our enhanced maintenance schedule for continued monitoring. In addition, the segments with severe structural defects have either been repaired or will be scheduled for repair as part of our ongoing Accumulative Capital Outlay Project.

If you have any questions regarding this report or the Condition Assessment Program, please contact Mr. Robert Swartz, Sewer Maintenance Division, at (626) 300-3367, Monday through Friday, 8 a.m. to 4 p.m., or rswartz@dpw.lacounty.gov.

Very truly yours,

GAIL FARBER
Director of Public Works



MASSOOD EFTEKHARI
Deputy Director



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Enc.

**CONDITION ASSESSMENT REPORT
COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS
CONSOLIDATED SEWER MAINTENANCE DISTRICT**

PROJECT NAME:	Y0TV1011A	PROJECT MGR:	Eric Liu
PROJECT DATE:	09/01/2011	CONTACT NO:	(626) 300-3369
SUP. DISTRICT(s):	1	MAP PAGE(S):	1861, 1862, 1915, 1916
Report By:	Eric Liu	Report Date:	11/27/2013

INTRODUCTION

As part of our Sewer Condition Assessment Program, the County of Los Angeles Department of Public Works Consolidated Sewer Maintenance District (District) has completed the closed-circuit television (CCTV) inspection of 54,684 feet or 20.9 percent of the City of Commerce's (City) sewer system as part of this condition assessment report.

To date, the District has completed the CCTV inspection of 171,954 feet or 65.7 percent of the City's sewer system. In addition to this report, one previous condition assessment report dated January 5, 2012, was provided to your City for information. A copy of this report can also be found at the District's website at <http://dpw.lacounty.gov/smd/cctv/city/>.

The remaining 34.3 percent of the City's sewer system is part of the District's current CCTV inspection project.

The Sewer Condition Assessment Program utilizes the Pipeline Assessment and Certification Program (PACP Version 6.0.1) quick rating methodology to rank the structural and maintenance condition of your system based on industry standards.

PROJECT AREA AND DESCRIPTION

Project No. Y0TV1011A included sewer lines located in the unincorporated County of Los Angeles and the Cities of Commerce, Diamond Bar, Glendora, Irwindale, and La Habra Heights. Enclosed for your reference is an overview map of the project area within your City (Enclosure 1).

DEFECT GRADE DESCRIPTION

The Quick Rating indicates the number of occurrences for the highest severity grade for each pipe segment for either maintenance or structural defects. A grade of 1 indicates that a pipe segment is in excellent condition with minor defects while a grade of 5 indicates that a pipe segment may require immediate attention. A detailed breakdown of the five possible defect grades is as follows:

Grade	Defect Grade Description
1:	MINOR
2:	MINOR TO MODERATE
3:	MODERATE
4:	SIGNIFICANT
5:	MOST SIGNIFICANT

MAINTENANCE REPORT

Our inspection revealed that approximately 81.2 percent of the system televised was free of blockages or restrictions that would impede sewer flows. However, the remaining 18.8 percent of the inspected pipe segments within the City had a PACP maintenance grade of 3, 4, or 5 as indicated in the Quick Maintenance Rating Table shown below. These segments have been incorporated into our enhanced cleaning schedule with corrective action taken as noted on the Quick Maintenance Rating Report Priority List (Enclosure 2).

In addition, a color-coded map showing the quick maintenance rating for each pipe segment is provided in Enclosure 2.

QUICK MAINTENANCE RATING TABLE

DEFECT GRADE	PIPE LENGTH (FT)	PERCENT TOTAL INSPECTED PIPE LENGTH	NO. SEGMENTS
1: Minor	0	0.0	0
2: Minor to Moderate	44,406	81.2	189
3: Moderate	4,885	8.9	21
4: Significant	5,393	9.9	22
5: Most Significant	0	0.0	0
TOTAL	54,684	100.0	232

Lateral Notices

Also included on the Quick Maintenance Rating Report Priority List are deficiencies discovered inside the private lateral connections to the mainline. The District does not maintain lateral lines. It is the responsibility of the property owner to maintain their respective lateral lines to facilitate the flow of wastewater from their property to the mainline. For this project, 26 notices will be sent to property owners in your City notifying them of the maintenance issues discovered in their lateral. A sample lateral notice letter is provided in Enclosure 2 for your reference.

High Water Levels

Our inspection revealed that approximately 91.9 percent of the system televised has adequate capacity. However, the remaining 0.9 percent of the inspected segments included deficiencies associated with high water levels. Capacity of the sewer pipe can be determined by analyzing several PACP codes, including Water Level, Water Mark, and miscellaneous remarks, which indicated the camera was underwater or there were sags in the line. A sewer pipe can be considered at capacity when 50 percent of the diameter of sewer pipe is full of water. However, there are particular conditions in which the water level or water mark has reached 50 percent or greater due to heavy flows in adjoining pipes, a temporary stoppage due to debris in the sewer lines, or a sag in the line. Therefore, additional review of the pipe segments with such high water level concerns was conducted to determine capacity issues, if any. The sewer segments associated with high water levels appear to be the result of sags in the line, which do not impact its capacity. The pipe segments have been cleaned to remove any debris in the line.

All sewer pipes where Water Level, Water Mark, and miscellaneous remarks of camera underwater or sags in the line are at or above 35 percent capacity have been outlined and analyzed on the High Water Level Table in Enclosure 2. The nature of these high water level conditions is also summarized on this table.

A map showing the sewer lines with high water levels is provided in Enclosure 2.

Infiltration

Our inspection revealed that infiltration was not detected in any pipe segment in your City's system.

STRUCTURAL REPORT

Our inspection revealed that approximately 95.1 percent of the inspected pipe segments within the City were free of severe structural defects. The remaining 4.9 percent of the inspected pipe segments had a PACP structural grade of 4 and 5 as indicated in the Quick Structural Rating Table shown below. These segments have been placed on a priority list based on the severity and the need for action. For Items 1 through 9 in the Quick Structural Rating Report Priority List (Enclosure 3), which require a corrective action, the proposed repair or replacement will be scheduled in the next 24 months as part of our ongoing Accumulative Capital Outlay Program.

A color-coded map showing the Quick Structural Rating for each pipe segment is located in Enclosure 3. Copies of the actual inspection report for these 9 segments are included in Enclosure 4.

Moreover, an additional 23 segments of sewers in this area are presently concrete pipes, which require rehabilitation through the installation of a pipe liner. Over time, concrete readily deteriorates in the presence of hydrogen sulfide gases produced in sewers. The installation of a plastic pipe liner will restore structural stability for these sewers for another 50 years. A map showing the sewer lines that need lining and point repair is also provided in Enclosure 3.

QUICK STRUCTURAL RATING TABLE

DEFECT GRADE	PIPE LENGTH (FT)	PERCENT TOTAL INSPECTED PIPE LENGTH	NO. SEGMENTS
1: Minor	32,177	58.8	142
2: Minor to Moderate	6,335	11.6	26
3: Moderate	13,530	24.7	55
4: Significant	1,573	2.9	6
5: Most Significant	1,069	2.0	3
TOTAL	54,684	100.0	232

FUTURE PROJECTS

The Sewer Condition Assessment Program will be performing future CCTV inspection of the remaining sewer lines within the City according to the following schedule:

FISCAL YEAR	PROJECT NAME	LENGTH (FT)	PERCENTAGE OF SYSTEM	STATUS
2008-09	Y0TV0809B	117,270	44.8	COMPLETED
2010-11	Y0TV1011A	54,684	20.9	COMPLETED
2013-14	Y0TV1314B2	90,014	34.3	IN PROGRESS
TOTAL		261,968	100.0	

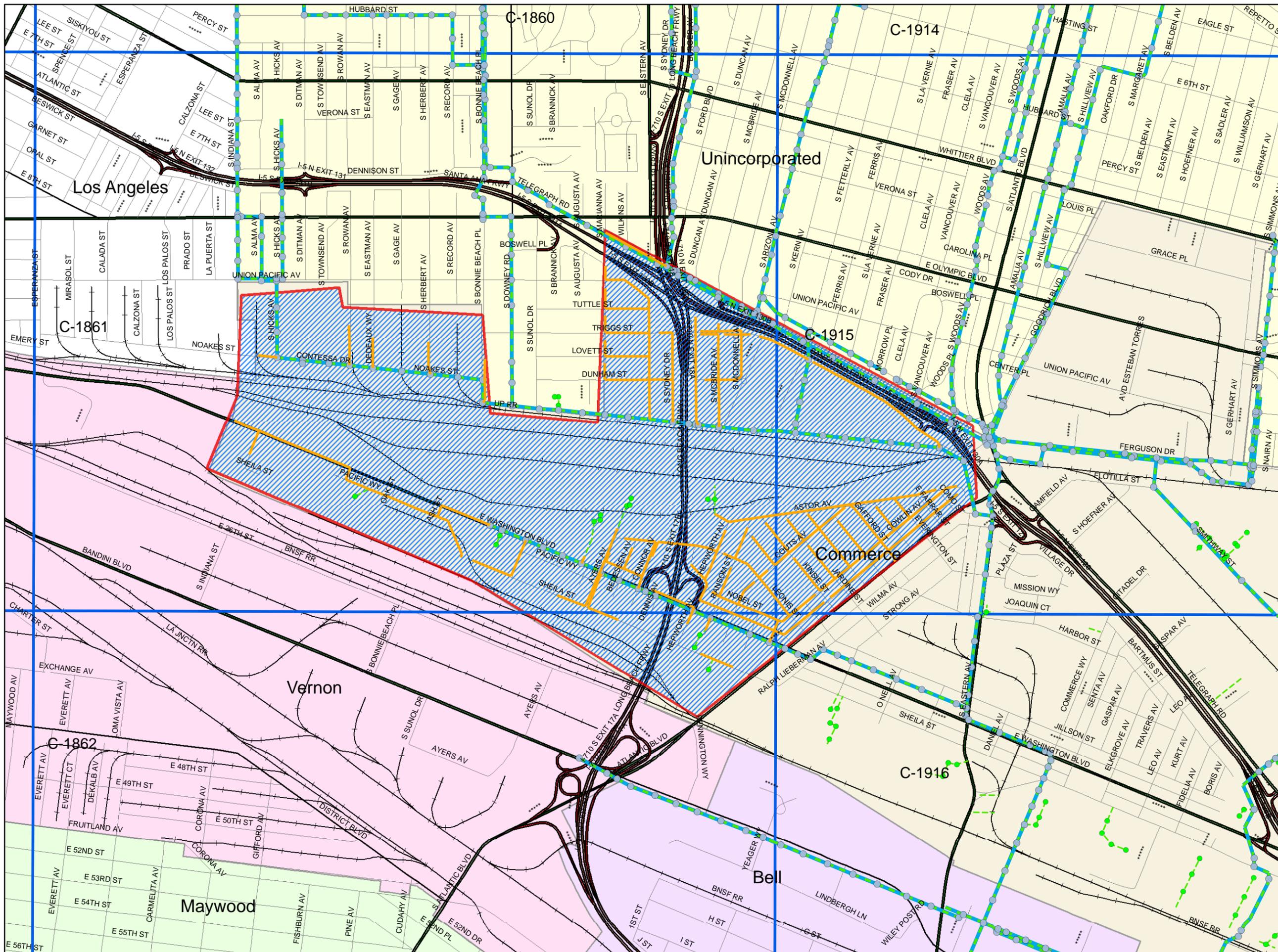
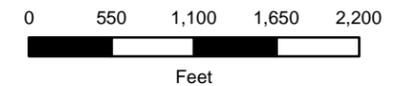
ENCLOSURE 1:

Project Overview Map

OVERVIEW MAP

CCTV PROJECT Y0TV1011A

CITY OF COMMERCE



Legend

— SMD Sanitary Sewers

SMD Manholes

⊙ Other

Manhole Type

● Standard

▲ DROP

■ Shallow

◆ Trap

⊗ Siphon

Ⓟ SMD Pump Stations

Ⓜ SMD Treatment Plants

Maintained by Others:

— Trunk Sewerlines

- - - Non SMD Sanitary Sewers

● Non SMD Maintained MH

□ SMD Operations Maps

▨ CCTV PROJECT AREA

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NOVEMBER 2013

ENCLOSURE 2:

- Quick Maintenance Rating Report
Priority List
- Quick Maintenance Rating Map
- High Water Levels
- High Water Levels Map
- Sample Lateral Notice Letter

ENCLOSURE 2
QUICK MAINTENANCE RATING REPORT PRIORITY LIST
CITY OF COMMERCE (Y0TV1011A)
as of 09/01/2011

Item No.	QMR	Start MH	End MH	Street	Observation	Corrective Action Taken
1	443D	1915-0707	1915-0720	COUTS AV	Root ball lateral; roots	Rodder (03/19/13) Lateral notice will be sent to property owner.
2	443C	1915-0730	1915-0731	COWLIN AV	Root ball lateral; roots	Rodder (03/19/13) Lateral notice will be sent to property owner.
3	433B	1915-0730	1915-0729	GAFFORD ST	Grease; root ball lateral; roots	Rodder (03/19/13) Lateral notice will be sent to property owner.
4	423B	1861-0443	1861-0442	RANSOM ST	Root ball lateral; roots	Rodder (03/20/13) Lateral notice will be sent to property owner.
5	4621	1861-0405	1861-0406	EASEMENT	Debris; deposits settled	Hydro (04/17/13)
6	4531	1861-0179	1861-0183	DUNHAM ST	Camera under water	Hydro (03/20/13)
7	4334	1915-0720	1915-0719	QUIGLEY ST	Root ball lateral; roots	Rodder (03/19/13) Lateral notice will be sent to property owner.
8	4332	1916-0058	1915-0713	COWLIN AV	Root ball lateral	Later notice will be sent to property owner.
9	4321	1861-0446	1861-0448	LEONIS ST	Root ball lateral	Later notice will be sent to property owner.
10	4234	1915-0728	1915-0729	GAFFORD ST	Root ball lateral; roots	Rodder (03/19/13) Lateral notice will be sent to property owner.
11	4233	1915-0718	1915-0717	JARDINE ST	Root ball lateral; roots	Hydro (03/19/13) Lateral notice will be sent to property owner.
12	4232	1915-0732	1915-0733	FAIR ST	Root ball lateral; gravel; debris; deposits settled	Rodder (03/19/13) Lateral notice will be sent to property owner.
13	4231	1915-0711	1915-0716	COWLIN AV	Root ball lateral; roots	Rodder (03/19/13) Lateral notice will be sent to property owner.
14	4222	1915-0743	1915-0742	ALLEY	Root ball lateral	Later notice will be sent to property owner.
15	4221	1915-0711	1915-0710	KINSIE ST	Root ball lateral; roots	Rodder (03/19/13) Lateral notice will be sent to property owner.
16	4134	1915-0723	1915-0724	HARBOR ST	Roots	Rodder (03/19/13)
17	4133	1861-0179	1861-0180	SYDNEY DR	Root ball lateral; roots	Rodder (03/20/13) Lateral notice will be sent to property owner.
18	4132	1915-0705	1915-0704	ASTOR AV	Root ball lateral; roots	Rodder (03/19/13) Lateral notice will be sent to property owner.
19	4131	1861-0441	1861-0442	RANSOM ST	Root ball lateral	Later notice will be sent to property owner.
20	4121	1861-0173	1861-0155	DUNCAN AV	Debris; deposits	Hydro (03/20/13)
21	4121	1861-0461	1861-0460	RANSOM ST	Root ball lateral	Later notice will be sent to property owner.
22	4121	1915-0724	1915-0725	HARBOR ST	Root ball lateral	Later notice will be sent to property owner.
23	3A21	1861-0179	1861-0178	SYDNEY DR	Roots	Rodder (03/20/13)
24	3622	1861-0420	1861-0421	AYERS AV	Debris; deposits settled	Hydro (04/17/13)
25	3323	1861-0408	1861-0409	SHEILA ST	Gravels; debris; deposits settled	Hydro (03/20/13)
26	3221	1861-0428	1861-0427	LEONIS ST	Sag	Hydro (03/20/13)
27	3221	1861-0428	1861-0456	HEPWORTH AV	Root medium lateral	Later notice will be sent to property owner.
28	3221	1915-0698	1915-0700	ASTOR AV	Root ball lateral	Later notice will be sent to property owner.
29	3122	1861-0443	1861-0444	LEONIS ST	Debris; deposits settled	Hydro (03/20/13)
30	3122	1915-0713	1915-0712	COWLIN AV	Root medium lateral	Later notice will be sent to property owner.
31	3121	1861-0392	1861-0393	WASHINGTON BV	Debris; deposits settled	Hydro (03/20/13)
32	3121	1861-0404	1861-0405	EASEMENT	Debris; deposits settled	Hydro (03/20/13)
33	3121	1861-0429	1861-0428	HEPWORTH AV	Root small lateral	No action needed.
34	3121	1861-0447	1861-0446	COUTS AV	Debris; deposits settled	Hydro (04/17/13)
35	3121	1861-0466	1861-0465	BEDESSEN AV	Root medium lateral	Later notice will be sent to property owner.
36	3121	1915-0699	1915-0736	COWLIN AV	Root small lateral	No action needed.
37	3121	1915-0707	1915-0706	JARDINE ST	Debris; deposits settled	Hydro (03/21/13)
38	3121	1915-0708	1915-0707	COUTS AV	Root medium lateral	Later notice will be sent to property owner.

ENCLOSURE 2
QUICK MAINTENANCE RATING REPORT PRIORITY LIST
CITY OF COMMERCE (Y0TV1011A)
as of 09/01/2011

Item No.	QMR	Start MH	End MH	Street	Observation	Corrective Action Taken
39	3121	1915-0730	1915-0741	GAFFORD ST	Roots	Rodder (03/20/13)
40	3121	1915-0731	1915-0732	FAIR ST	Root medium lateral	Later notice will be sent to property owner.
41	3121	1915-0738	1915-0737	ALLEY	Gravels; debris; deposits settled	Hydro (03/20/13)
42	3121	1915-0741	1915-0740	ALLEY	Root small lateral	No action needed.
43	3111	1861-0412	1861-0413	SHEILA ST	Debris; deposits settled	Hydro (03/20/13)

ENCLOSURE 2
HIGH WATER LEVEL
CITY OF COMMERCE (Y0TV1011A)
as of 09/01/2011

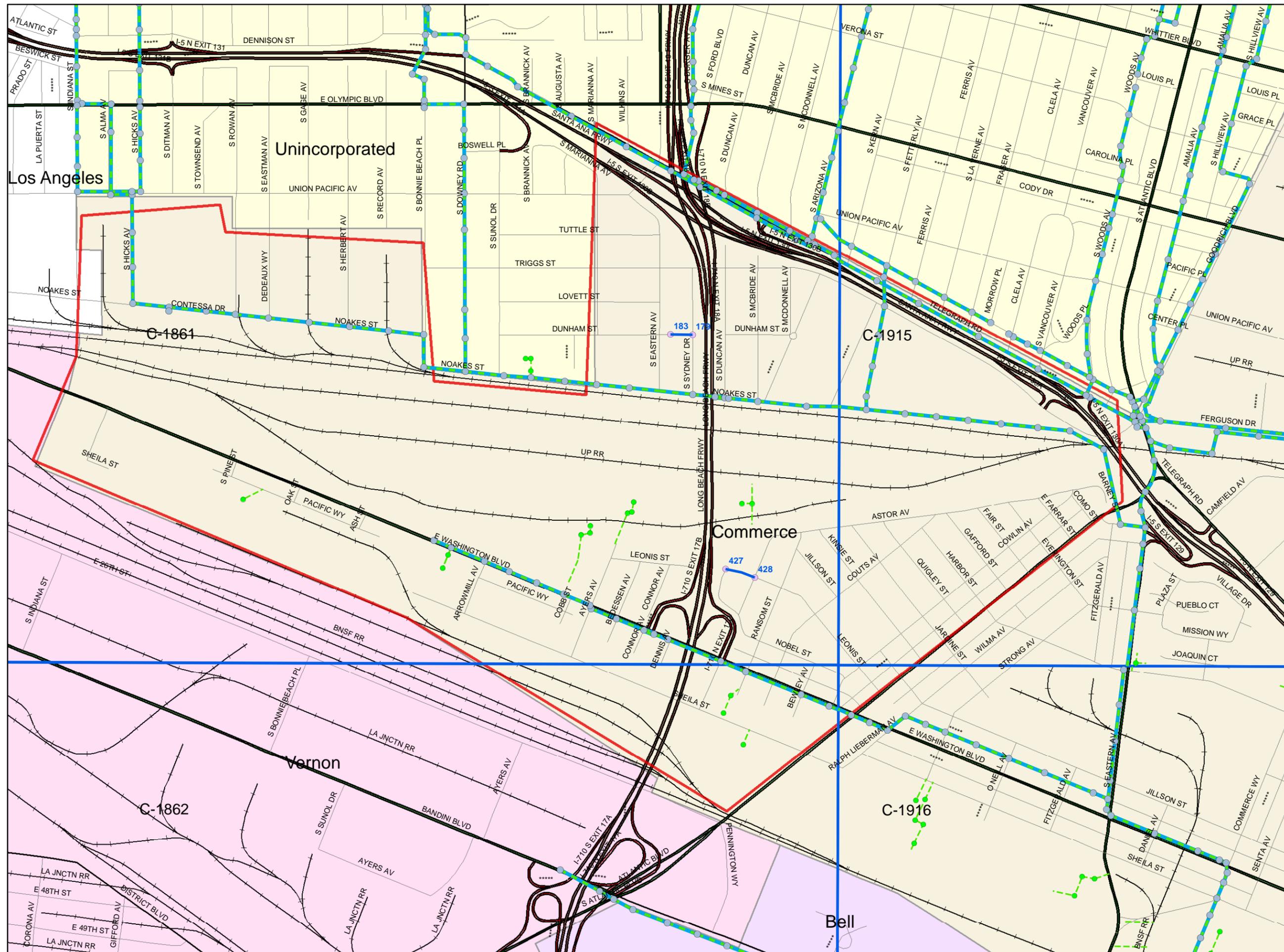
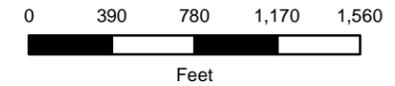
Item No.	QMR	Start MH	End MH	Street	Observation	Percent Capacity: Location
1	4531	1861-0179	1861-0183	DUNHAM ST	Camera under water	(30% - 70%): 51' - 115'
2	3221	1861-0428	1861-0427	LEONIS ST	Sag	(30% - 50%): 45' - 117', 190' - end MH

ENCLOSURE 2

CCTV PROJECT Y0TV1011A

COMMERCE

HIGH WATER LEVEL



Legend

— HIGH WATER LEVEL

SMD Manholes

- Other
- Standard
- DROP
- Shallow
- Trap
- Siphon
- SMD Pump Stations
- SMD Treatment Plants

Maintained by Others:

- Trunk Sewerlines
- Non SMD Sanitary Sewers
- Non SMD Maintained MH
- SMD Operations Maps
- CCTV PROJECT AREA

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GAIL FARBER, Director

COUNTY OF LOS ANGELES

DEPARTMENT OF PUBLIC WORKS

"To Enrich Lives Through Effective and Caring Service"

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ADDRESS ALL CORRESPONDENCE TO:
P.O. BOX 1460
ALHAMBRA, CALIFORNIA 91802-1460

{Date}

IN REPLY PLEASE

REFER TO FILE:

SM-1

Current Property Owner

Dear Property Owner:

SEWER LATERAL ROOT INTRUSION

As the agency responsible for the maintenance of the sanitary sewer system in your area, the County of Los Angeles Consolidated Sewer Maintenance District (District) is providing you with this courtesy notice informing you that the sewer lateral serving the property located at XXXX, requires maintenance per **County Code 20.24.080 Maintenance of Sewer Laterals.**

"All house laterals, industrial connection sewers, septic tank outlet connections to STEP system, and appurtenances thereto existing as of January 23, 1953, or thereafter constructed, shall be maintained by the owner of the property served in a safe and sanitary condition, and all devices or safeguards which are required by this Division 2 for the operation thereof shall be maintained in good working order."

Using closed-circuit television (CCTV) camera technology, the District recently televised the sanitary sewer mainline and discovered the presence of roots in your sewer lateral connection. The intrusion of the roots from your lateral may block the flow of sewage in the mainline sewer causing a sanitary sewer overflow upstream of your property.

Since the CCTV inspection, the sewer mainline has been cleaned and blockages from root growth have been removed; however, the root blockage in your sewer lateral is still present. As the property owner, you are responsible for the entire length of the sewer lateral, which includes the portion that extends beyond the property line into the public right of way. We request that you contact a qualified plumbing contractor to service your sewer lateral within 90 days to remove roots and any other obstructions that may cause a sewage backup.

Prior to your plumbing contractor servicing your lateral, please notify the District's sewer maintenance yard in your area at (XXX) XXX-XXXX to arrange for authorization to access the downstream manhole.

During your lateral service, your plumbing contractor must protect the District's sewer mainlines from dislodged roots and other debris by utilizing catcher baskets at the manhole downstream from your lateral connection.

After your lateral has been serviced, please notify Mr. Fernando Villaluna, Sewer Maintenance Division, at (626) 300-3380 or fvillaluna@dpw.lacounty.gov.

For your reference, we have enclosed photos of your lateral connection showing the presence of the root blockage. Also enclosed are some literature on ways of minimizing sewer overflows and damage to your home.

Thank you for helping the Department of Public Works keep the public's sewers clean and in good working order.

Very truly yours,

GAIL FARBER
Director of Public Works

RAJESH PATEL
Assistant Deputy Director
Sewer Maintenance Division

XXXX

Enc.

XXXX
Roots at Lateral Connection



Minimizing Sewer Overflows and Damage to Your Home

The sewer system within the County of Los Angeles Consolidated Sewer Maintenance District (District) is comprised of a series of underground pipes. Many are publicly owned; however, the sewer laterals are entirely owned by the private property owner they serve. The laterals extend from the building to the mainline within the street (or within an easement at the rear of your home). The laterals are typically four inches in diameter while the District's mainline is typically at least eight inches in diameter. The private property owner is responsible for the entire length of the lateral, which includes the portion that may be located within the public right of way (under the asphalt and street landscaping).

SEWER LATERALS – AREAS OF RESPONSIBILITY



Sewer backups can cause tremendous damage to the interior of a home. In order to minimize these, the District provides continual maintenance services for the public sewer mainlines.

Unfortunately, sewer laterals are often not maintained by private property owners until a disaster strikes. "Out of sight, out of mind" is a typical approach to sewer lateral maintenance and operation by many. It is our hope that we can provide you various means of addressing these issues and thus minimize your risk of an overflow entering your home.

The three methods we suggest are:

1. Maintain your lateral through proper cleaning, repair, and replacement
2. Do not place improper items into the sewer or make improper connections to the sewer
 - a. Keep rainwater out of the sewer lines as it overwhelms the capacity of the sewer lines and may cause sewer spills.
 - b. Do not pour fats, oils, and grease in your drains as these products harden and stick to the inside of the sewer pipes, which build up and may eventually cause a blockage in the sewer pipe.
3. Install a backflow preventer and cleanout in your sewer lateral.

ENCLOSURE 3:

- Quick Structural Rating Report
Priority List
- Quick Structural Rating Map
- Rehabilitation Projects Map

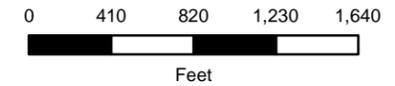
ENCLOSURE 3
QUICK STRUCTURAL RATING REPORT
CITY OF COMMERCE (Y0TV1011A)
as of 09/01/2011

Item No.	QSR	Start MH	End MH	Street	Observation: Location	Proposed Corrective Method	Length of Repair (FT)
1	5235	1861-0426	1861-0427	LONG BEACH FRWY	Fractures: 4' - 10', 68', 75', 79', 262', 276', 304', 310'; medium offset: 64'	Lining: MH to MH	372
2	5221	1861-0151	1861-0152	EASTERN AV	Fracture: 46'; broken with visible void: 120'; concrete sewer	Emergency Point Repair (completed: 03/11/13); Lining: MH to MH	312
3	5141	1861-0173	1861-0155	DUNCAN AV	Fractures: 172', 184'; hole soil visible: 241'	Structural integrity intact. No action needed.	
4	4137	1915-0734	1915-0735	EVERINGTON ST	Fractures: 6', 29', 155', 209'	Structural integrity intact. No action needed.	
5	4135	1915-0700	1915-0701	ASTOR AV	Fractures: 42', 264', 267'	Structural integrity intact. No action needed.	
6	4131	1861-TRNK	1861-0464	AYERS AV	Fractures: 137', 312'; concrete sewer	Lining: MH to MH	325
7	4131	1862-0010	1862-0011	SHEILA ST	Fracture: 51', 197'; hole at base MH 11	CSMD will repair MH base.	
8	4100	1861-0171	1861-0169	TRIGGS ST	Fractures: 83'; concrete sewer	Lining: MH to MH	230
9	4100	1915-0716	1915-0726	COWLIN AV	Fractures: 252'	Structural integrity intact. No action needed.	
10	3A22	1861-0181	1861-0182	EASTERN AV	Concrete sewer	Lining: MH to MH	311
11	3221	1861-0181	1861-0152	EASTERN AV	Concrete sewer	Lining: MH to MH	316
12	2300	1861-0184	1861-TRNK	EASTERN AV	Concrete sewer	Lining: MH to MH	273
13	2200	1861-0150	1861-0151	EASTERN AV	Concrete sewer	Lining: MH to MH	120
14	1100	1861-0387	1861-0386	WASHINGTON BV	Concrete sewer	Lining: MH to MH	190
15	0000	1861-0158	1861-0162	MC DONNELL AV	Concrete sewer	Lining: MH to MH	303
16	0000	1861-0162	1861-0163	MC DONNELL AV	Concrete sewer	Lining: MH to MH	308
17	0000	1861-0163	1861-0164	DUNHAM ST	Concrete sewer	Lining: MH to MH	292
18	0000	1861-0165	1861-0164	DUNHAM ST	Concrete sewer	Lining: MH to MH	191
19	0000	1861-0167	1861-0164	MC BRIDE AV	Concrete sewer	Lining: MH to MH	303
20	0000	1861-0169	1861-0157	TRIGGS ST	Concrete sewer	Lining: MH to MH	303
21	0000	1861-0170	1861-0167	MC BRIDE AV	Concrete sewer	Lining: MH to MH	308
22	0000	1861-0170	1861-0172	TRIGGS ST	Concrete sewer	Lining: MH to MH	192
23	0000	1861-0185	1861-0182	DUNHAM ST	Concrete sewer	Lining: MH to MH	292
24	0000	1861-0186	1861-0185	DUNHAM ST	Concrete sewer	Lining: MH to MH	294
25	0000	1861-0309	1861-TRNK	ROWAN AV	Concrete sewer	Lining: MH to MH	237
26	0000	1861-0310	1861-0309	ROWAN AV	Concrete sewer	Lining: MH to MH	259
27	0000	1861-0311	1861-0310	ROWAN AV	Concrete sewer	Lining: MH to MH	261
28	0000	1861-0388	1861-0387	WASHINGTON BV	Concrete sewer	Lining: MH to MH	200
29	0000	1861-0401	1861-0399	ASH ST	Concrete sewer	Lining: MH to MH	123
30	0000	1861-0401	1861-0402	WASHINGTON BV	Concrete sewer	Lining: MH to MH	293
31	0000	1861-0403	1861-0402	WASHINGTON BV	Concrete sewer	Lining: MH to MH	290
32	0000	1861-0403	1861-TRNK	WASHINGTON BV	Concrete sewer	Lining: MH to MH	290

ENCLOSURE 3
CCTV PROJECT
Y0TV1011A

COMMERCE

QUICK
STRUCTURAL
RATING
(QSR)



Legend

SMD Sanitary Sewers

QSR

- 1: MINOR
- 2: MINOR TO MODERATE
- 3: MODERATE
- 4: SIGNIFICANT
- 5: MOST SIGNIFICANT

SMD Manholes

Other

Manhole Type

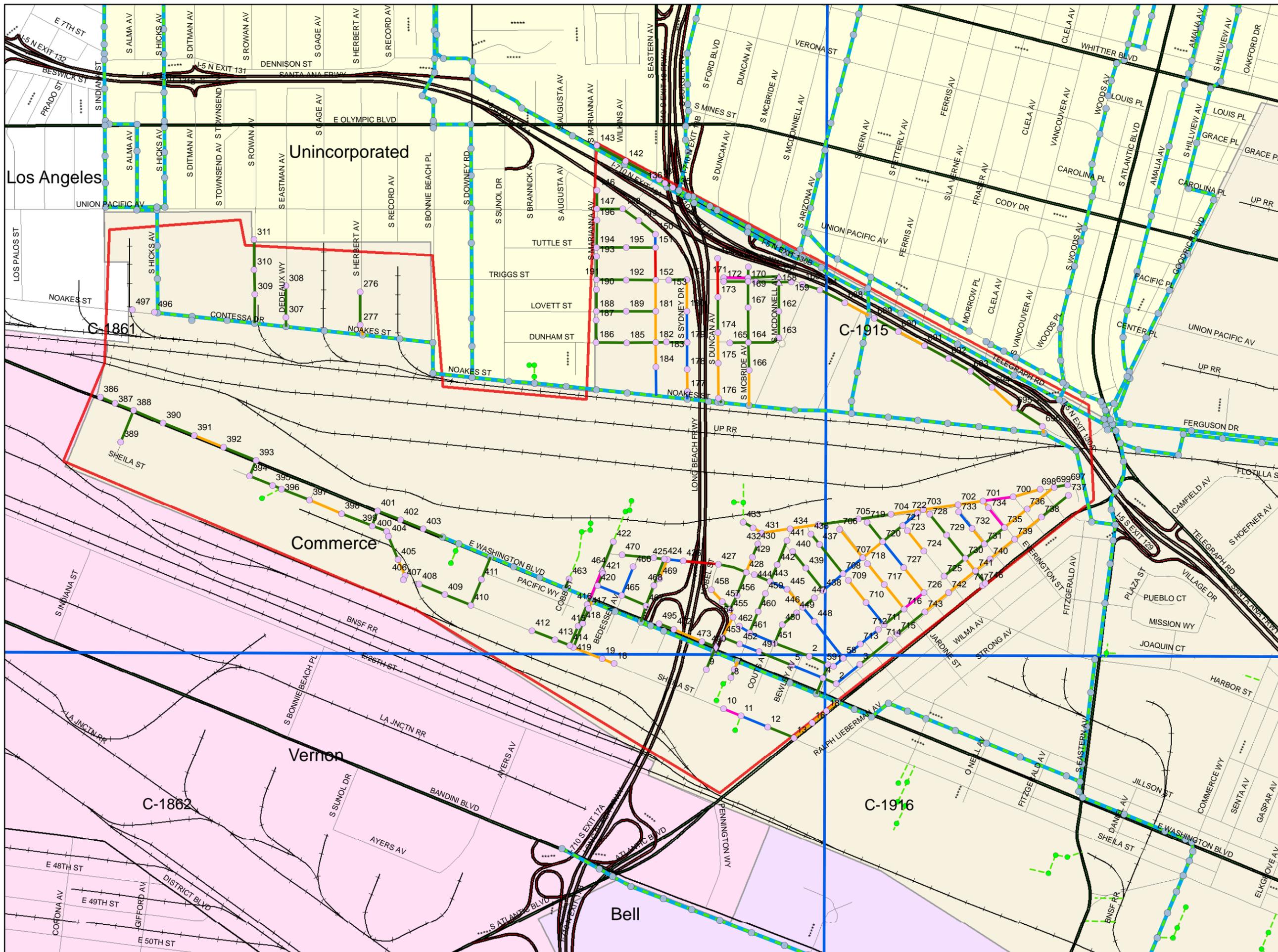
- Standard
- DROP
- Shallow
- Trap
- Siphon
- SMD Pump Stations
- SMD Treatment Plants

Maintained by Others:

- Trunk Sewerlines
- Non SMD Sanitary Sewers
- Non SMD Maintained MH
- SMD Operations Maps
- CCTV PROJECT AREA

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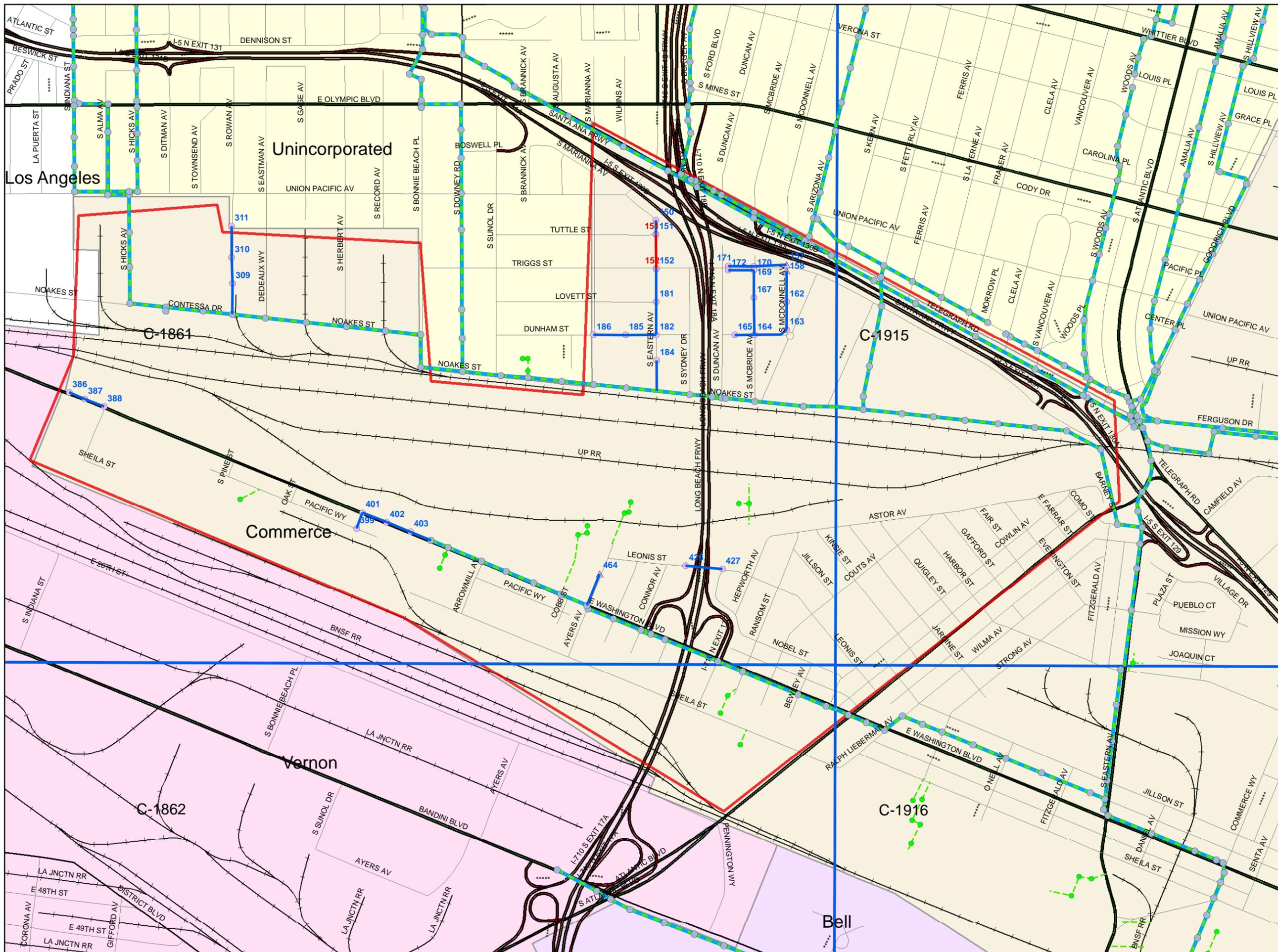
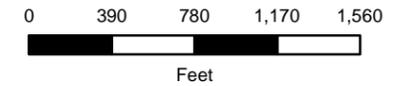
NOVEMBER 2013



ENCLOSURE 3
CCTV PROJECT
Y0TV1011A

COMMERCE

**LINING &
 POINT REPAIR**



- Legend**
- LINING
 - POINT REPAIR & LINING
- SMD Manholes**
- Other
- Manhole Type**
- Standard
 - DROP
 - Shallow
 - Trap
 - Siphon
 - SMD Pump Stations
 - SMD Treatment Plants
- Maintained by Others:**
- Trunk Sewerlines
 - - - Non SMD Sanitary Sewers
 - Non SMD Maintained MH
 - SMD Operations Maps
 - CCTV PROJECT AREA

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ENCLOSURE 4:

Infrastructure Inspection Reports
for Grades 4 and 5



Inspection report

Date: 20110722	P.O.#: Y0TV1011A	Weather: 1 Dry	Surveyed By: A.OBRIEN	section number: 3394	PSR: 53255
Total Pipe Length: 352	Survey Customer: LACDPW	System Owner: CMR	Clean Date: 07/22/2011	Pre-Cleaned: J Jetting	rate: 1861

Street: LONG BEACH FRWY	Flow Control: N Not Controlled	Start MH: 1861-0426
City: CMR	Year Renewed:	End MH: 1861-0427
Location Code: D Easement/Right of Way	Tape/Media #:	Total length surveyed: 373.23 ft

Purpose: F Routine Assessment	Dia/Height: C Circular 8/8
Use: SS Sanitary	Material: VCP Pipe Joint length: 352
Drain. Area: 0426/1861-0427/1861	Lining:
	Category:

Comment: **NONE**

Location details:

1:744	position	code	observation	MPEG	photo	grade
	0.00	AMH	Upstream Manhole, Survey Begins 1861-0426	00:00:14	155	
	0.00	MWL	Water Level, 5 % of cross sectional area	00:00:25		
	0.00	MWM	Water Mark, 5 of cross sectional area	00:00:27		M 2
	3.71	CM	Crack Multiple, from 08 to 05 o'clock, within 8 inch: YES	00:00:40	156, b	S 3
	7.92	CL	Crack Longitudinal, at 03 o'clock, within 8 inch: YES	00:00:56	158, b	S 2
	18.64	TFA	Tap Factory Made Active, at 10 o'clock, 6", within 8 inch: YES	00:01:20	160	
	22.14	B	Broken, from 09 to 03 o'clock, within 8 inch: YES	00:01:36	161, b	S 5
	36.47	TFA	Tap Factory Made Active, at 10 o'clock, 6", within 8 inch: YES	00:02:38	163	
	61.72	CM	Crack Multiple, from 09 to 12 o'clock, within 8 inch: YES	00:03:39	164, b	S 3
	64.33	JOM	Joint Offset Medium	00:03:55	166, b	S 1
	68.13	MWLS	Water Level, Sag in pipe, 10 % of cross sectional area	00:04:16	168	M 2
	75.45	B	Broken, from 08 to 04 o'clock, within 8 inch: YES	00:04:36	169, b	S 5
	78.45	CM	Crack Multiple, from 10 to 12 o'clock, within 8 inch: YES	00:04:56	171, b	S 3
	123.54	TFC	Tap Factory Made Capped, at 10 o'clock, 6", within 8 inch: YES	00:06:18	173	
	135.17	TFC	Tap Factory Made Capped, at 10 o'clock, 6", within 8 inch: YES	00:06:43	174	
	198.89	TFC	Tap Factory Made Capped, at 10 o'clock, 6", within 8 inch: YES	00:08:18	175	
	213.52	TFC	Tap Factory Made Capped, at 02 o'clock, 6", within 8 inch: YES	00:08:50	176	
	225.14	TFC	Tap Factory Made Capped, at 10 o'clock, 6", within 8 inch: YES	00:09:16	177	
	249.19	TFC	Tap Factory Made Capped, at 10 o'clock, 6", within 8 inch: YES	00:10:49	178	
	261.11	CL	Crack Longitudinal, at 10 o'clock, within 8 inch: YES	00:11:19	179, b	S 2
	272.94	TFC	Tap Factory Made Capped, at 02 o'clock, 6", within 8 inch: YES	00:11:48	181	
	276.34	CL	Crack Longitudinal, at 08 o'clock, within 8 inch: YES	00:12:04	182, b	S 2
	282.15	RFJ	Roots Fine Joint, at 03 o'clock, within 8 inch: YES	00:12:22	184, b	M 1
	282.45	CL	Crack Longitudinal, at 09 o'clock, within 8 inch: YES	00:12:31	186, b	S 2
	294.48	RFJ	Roots Fine Joint, from 08 to 04 o'clock, within 8 inch: YES	00:13:36	188, b	M 1



Inspection report

Date: 20110722	P.O.#: Y0TV1011A	Weather: 1 Dry	Surveyed By: A.OBRIEN	section number: 3394	PSR: 53255
Total Pipe Length: 352	Survey Customer: LACDPW	System Owner: CMR	Clean Date: 07/22/2011	Pre-Cleaned: J Jetting	rate: 1861

1:744	position	code	observation	MPEG	photo	grade
	<u>294.48</u>	RFJ	Roots Fine Joint, from 08 to 04 o'clock, within 8 inch: YES	00:13:36	188, b	M 1
	<u>297.68</u>	RFJ	Roots Fine Joint, from 08 to 03 o'clock, within 8 inch: YES	00:13:53	190, b	M 1
	<u>299.79</u>	TFA	Tap Factory Made Active, at 10 o'clock, 6", within 8 inch: YES	00:14:07	192	
	<u>300.29</u>	RFJ	Roots Fine Joint, from 03 to 09 o'clock, within 8 inch: YES	00:14:19	193, b	M 1
	<u>303.30</u>	CM	Crack Multiple, from 11 to 04 o'clock, within 8 inch: YES	00:14:36	195, b	S 3
	<u>309.11</u>	CM	Crack Multiple, from 07 to 04 o'clock, within 8 inch: YES	00:14:57	197, b	S 3
	<u>323.84</u>	TFA	Tap Factory Made Active, at 10 o'clock, 6", within 8 inch: YES	00:15:50	199	
	<u>347.68</u>	TFA	Tap Factory Made Active, at 10 o'clock, 6", within 8 inch: YES	00:17:29	200	
	<u>368.32</u>	TFA	Tap Factory Made Active, at 10 o'clock, 6", within 8 inch: YES	00:20:08	201	
	<u>373.23</u>	AMH	Downstream Manhole, Survey Ends 1861-0427	00:21:15	202	



Inspection report

Date: 20110801	P.O.#: Y0TV1011A	Weather: 1 Dry	Surveyed By: J.SALAS	section number: 3571	PSR: 53477
Total Pipe Length: 325	Survey Customer: LACDPW	System Owner: CMR	Clean Date: 08/01/2011	Pre-Cleaned: J Jetting	rate: 1861

Street: EASTERN AV	Flow Control: N Not Controlled	Start MH: 1861-0151
City: CMR	Year Renewed:	End MH: 1861-0152
Location Code: C Light Highway	Tape/Media #:	Total length surveyed: 120.68 ft

Purpose: F Routine Assessment	Dia/Height: C Circular 8/8
Use: SS Sanitary	Material: CP Concrete Pipe (non-reinforced) Pipe Joint length: 325
Drain. Area: 0151/1861-0152/1861	Lining: Category:

Comment: **HOLE**
 Location details:

1:300	position	code	observation	MPEG	photo	grade
	0.00	AMH	Upstream Manhole, Survey Begins 1861-0151		110	
	0.00	MWL	Water Level, 10 % of cross sectional area			
	0.00	MWM	Water Mark, 20 % of cross sectional area			M 2
	43.34	TFA	Tap Factory Made Active, at 09 o'clock, 6", within 8 inch: YES	00:02:04	111	
	46.98	CL	Crack Longitudinal, at 03 o'clock, within 8 inch: YES	00:02:16	112, b	S 2
	68.43	TFA	Tap Factory Made Active, at 03 o'clock, 6", within 8 inch: YES	00:03:25	114	
	83.58	TFA	Tap Factory Made Active, at 09 o'clock, 6", within 8 inch: YES	00:03:55	115	
	113.81	TFA	Tap Factory Made Active, at 03 o'clock, 6", within 8 inch: YES	00:04:50	116	
	120.68	HSV	Hole Soil Visible, from 07 to 11 o'clock, within 8 inch: YES	00:06:02	117, b	S 5
	120.68	HVV	Hole Void Visible, from 01 to 05 o'clock, within 8 inch: YES	00:06:17	119, b	S 5
	120.68	MSA	Survey Abandoned, Remark: HOLE IN PIPE	00:07:11	121, b	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
5221	2100	12	2	14	4	2	3.5



National Plant Services Inc.
 1461 Harbor Ave
 Long Beach, CA 90813
 Tel: (562) 436-7600, Fax: (562) 495-1528

Inspection report

Date: 20110801	P.O.#: YOTV1011A	Weather: 1 Dry	Surveyed By: J.SALAS	section number: 3573	PSR: 53477
Total Pipe Length:	Survey Customer: LACDPW	System Owner: CMR	Clean Date: 08/01/2011	Pre-Cleaned: J Jetting	rate: 1861

Street: EASTERN AV	Flow Control: N Not Controlled	Start MH: 1861-0152
City: CMR	Year Renewed	End MH: 1861-0151
Location Code: C Light Highway	Tape/Media #:	Total length surveyed: 192.61 ft

Purpose: F Routine Assessment	Dia/Height: C Circular 8/8
Use: SS Sanitary	Material: CP Concrete Pipe (non-reinforced) Pipe Joint length: REV
Drain. Area:	Lining: ED
	Category:

Comment: **REVERSED**

Location details:

1:475	position	code	observation	MPEG	photo	grade
	0.00	AMH	Downstream Manhole, Survey Begins 1861-0152			
	0.00	MWL	Water Level, 15 % of cross sectional area			
	0.00	MWM	Water Mark, 20 % of cross sectional area			M 2
	27.79	TFA	Tap Factory Made Active, at 03 o'clock, 6", within 8 inch: YES	00:01:36	170	
	30.44	TFA	Tap Factory Made Active, at 09 o'clock, 6", within 8 inch: YES	00:01:44	171	
	72.98	TFA	Tap Factory Made Active, at 03 o'clock, 6", within 8 inch: YES	00:02:52	172	
	75.52	TFA	Tap Factory Made Active, at 09 o'clock, 6", within 8 inch: YES	00:03:00	173	
	118.22	TFA	Tap Factory Made Active, at 03 o'clock, 6", within 8 inch: YES	00:04:08	174	
	120.88	TFA	Tap Factory Made Active, at 09 o'clock, 6", within 8 inch: YES	00:04:17	175	
	153.32	TFA	Tap Factory Made Active, at 03 o'clock, 6", within 8 inch: YES	00:05:09	176	
	165.93	TFA	Tap Factory Made Active, at 09 o'clock, 6", within 8 inch: YES	00:05:32	177	
	192.61	MSA	Survey Abandoned, Remark: reversed completed hole on pip	00:06:58	178, b	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
0000	2100	0	2	2	0	2	2



Inspection report

Date: 20110801	P.O.#: Y0TV1011A	Weather: 1 Dry	Surveyed By: B FUGATE	section number: 3517	PSR: 53169
Total Pipe Length: 319	Survey Customer: LACDPW	System Owner: CMR	Clean Date: 08/01/2011	Pre-Cleaned: J Jetting	rate: 1861

Street: AYERS AV	Flow Control: N Not Controlled	Start MH: 1861-TRNK
City: CMR	Year Renewed:	End MH: 1861-0464
Location Code: C Light Highway	Tape/Media #:	Total length surveyed: 325.55 ft

Purpose: F Routine Assessment	Dia/Height: C Circular 8/8
Use: SS Sanitary	Material: VCP Pipe Joint length: 319
Drain. Area: 0464/1861-TRNK/1861	Lining:
	Category:

Comment: **NONE**

Location details:

1:800	position	code	observation	MPEG	photo	grade
	0.00	AMH	Downstream Manhole, Survey Begins 1861-TRNK	00:00:11	1	
	0.00	MWL	Water Level, 5 % of cross sectional area	00:00:24		
	0.00	MWM	Water Mark, 10 % of cross sectional area	00:00:26		M 2
	101.36	TFA	Tap Factory Made Active, at 12 o'clock, 6", within 8 inch: YES	00:03:00	7	
	137.60	FL	Fracture Longitudinal, at 12 o'clock, within 8 inch: YES	00:04:10	8, b	S 3
	215.64	TFA	Tap Factory Made Active, at 12 o'clock, 6", within 8 inch: YES	00:06:28	10	
	297.46	TFA	Tap Factory Made Active, at 12 o'clock, 6", within 8 inch: YES	00:08:39	11	
	312.43	FM	Fracture Multiple, from 10 to 01 o'clock, within 8 inch: YES	00:09:15	12, b	S 4
	325.55	AMH	Upstream Manhole, Survey Ends 1861-0464	00:10:01	14	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
4131	2100	7	2	9	3.5	2	3



Inspection report

Date: 20110722	P.O.#: Y0TV1011A	Weather: 1 Dry	Surveyed By: A.OBRIEN	section number: 3395	PSR: 53199
Total Pipe Length: 189	Survey Customer: LACDPW	System Owner: CMR	Clean Date: 07/22/2011	Pre-Cleaned: J Jetting	rate: 1862

Street: SHEILA ST	Flow Control: N Not Controlled	Start MH: 1862-0010
City: CMR	Year Renewed:	End MH: 1862-0011
Location Code: C Light Highway	Tape/Media #:	Total length surveyed: 200.09 ft

Purpose: F Routine Assessment	Dia/Height: C Circular 8/8
Use: SS Sanitary	Material: VCP Pipe Joint length: 189
Drain. Area: 0010/1862-0011/1862	Lining:
	Category:

Comment: **NONE**

Location details:

1:500	position	code	observation	MPEG	photo	grade
	0.00	AMH	Upstream Manhole, Survey Begins 1862-0010	00:00:07	69	
	0.00	MWL	Water Level, 5 % of cross sectional area	00:00:19		
	0.00	MWM	Water Mark, 5 % of cross sectional area	00:00:21		M 2
	10.72	TFC	Tap Factory Made Capped, at 02 o'clock, 6", within 8 inch: YES	00:00:46	70	
	20.04	TFA	Tap Factory Made Active, at 10 o'clock, 6", within 8 inch: YES	00:01:06	71	
	51.10	CM	Crack Multiple, from 07 to 10 o'clock, within 8 inch: YES	00:02:05	72, b	S 3
	56.11	TFC	Tap Factory Made Capped, at 10 o'clock, 6", within 8 inch: YES	00:02:25	74	
	58.62	TFC	Tap Factory Made Capped, at 02 o'clock, 6", within 8 inch: YES	00:02:38	75	
	107.91	TFC	Tap Factory Made Capped, at 10 o'clock, 6", within 8 inch: YES	00:03:59	76	
	110.52	TFC	Tap Factory Made Capped, at 02 o'clock, 6", within 8 inch: YES	00:04:12	77	
	170.23	TFC	Tap Factory Made Capped, at 10 o'clock, 6", within 8 inch: YES	00:05:44	78	
	184.86	CL	Crack Longitudinal, at 09 o'clock, within 8 inch: YES	00:06:14	79, b	S 2
	197.49	FM	Fracture Multiple, from 06 to 10 o'clock, within 8 inch: YES	00:06:44	81, b	S 4
	200.09	AMH	Downstream Manhole, Survey Ends 1862-0011	00:07:04	83	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
4131	2100	9	2	11	3	2	2.75



National Plant Services Inc.
 1461 Harbor Ave
 Long Beach, CA 90813
 Tel: (562) 436-7600, Fax: (562) 495-1528

Inspection report

Date: 20110729	P.O.#: Y0TV1011A	Weather: 1 Dry	Surveyed By: B FUGATE	section number: 3481	PSR: 53499
Total Pipe Length: 244	Survey Customer: LACDPW	System Owner: CMR	Clean Date: 07/29/2011	Pre-Cleaned: J Jetting	rate: 1861

Street: TRIGGS ST	Flow Control: N Not Controlled	Start MH: 1861-0171
City: CMR	Year Renewed:	End MH: 1861-0169
Location Code: C Light Highway	Tape/Media #:	Total length surveyed: 228.27 ft

Purpose: F Routine Assessment	Dia/Height: C Circular 8/8
Use: SS Sanitary	Material: VCP Pipe Joint length: 244
Drain. Area: 0169/1861-0171/1861	Lining:
	Category:

Comment: **NONE**

Location details:

1:575	position	code	observation	MPEG	photo	grade
	0.00	AMH	Upstream Manhole, Survey Begins 1861-0171		93	
	0.00	MWL	Water Level, 5 % of cross sectional area			
	0.00	MWM	Water Mark, 5 % of cross sectional area			M 2
	9.23	TFA	Tap Factory Made Active, at 09 o'clock, 6", within 8 inch: YES	00:00:47	94	
	83.18	FM	Fracture Multiple, from 12 to 03 o'clock, within 8 inch: YES	00:03:02	95, b	S 4
	97.18	TFA	Tap Factory Made Active, at 09 o'clock, 6", within 8 inch: YES	00:03:35	97	
	143.53	TFA	Tap Factory Made Active, at 09 o'clock, 6", within 8 inch: YES	00:05:08	98	
	228.27	AMH	Downstream Manhole, Survey Ends 1861-0169	00:07:58	99	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
4100	2100	4	2	6	4	2	3



Inspection report

Date: 20110718	P.O.#: Y0TV1011A	Weather: 1 Dry	Surveyed By: A.OBRIEN	section number: 3253	PSR: 46207
Total Pipe Length: 260	Survey Customer: LACDPW	System Owner: CMR	Clean Date: 07/18/2011	Pre-Cleaned: J Jetting	rate: 1915

Street: COWLIN AV	Flow Control: N Not Controlled	Start MH: 1915-0716
City: CMR	Year Renewed:	End MH: 1915-0726
Location Code: C Light Highway	Tape/Media #:	Total length surveyed: 256 ft

Purpose: F Routine Assessment	Dia/Height: C Circular 8/8
Use: SS Sanitary	Material: VCP Pipe Joint length: 260
Drain. Area: 0716/1915-0726/1915	Lining:
	Category:

Comment: **NONE**

Location details:

1:625	position	code	observation	MPEG	photo	grade
	0.00	AMH	Upstream Manhole, Survey Begins 1915-0716	00:00:06	205	
	0.00	MWL	Water Level, 5 % of cross sectional area	00:00:22		
	0.00	MWM	Water Mark, 5 of cross sectional area	00:00:24		M 2
	13.23	RFJ	Roots Fine Joint, from 02 to 03 o'clock, within 8 inch: YES	00:00:51	206, b	M 1
	72.64	TFC	Tap Factory Made Capped, at 10 o'clock, 6", within 8 inch: YES	00:02:36	208	
	79.36	RFJ	Roots Fine Joint, from 12 to 03 o'clock, within 8 inch: YES	00:03:01	209, b	M 1
	99.90	TFA	Tap Factory Made Active, at 10 o'clock, 6", within 8 inch: YES	00:03:57	211	
	123.94	TFA	Tap Factory Made Active, at 10 o'clock, 6", within 8 inch: YES	00:04:54	212	
	141.58	TFA	Tap Factory Made Active, at 10 o'clock, 6", within 8 inch: YES	00:05:35	213	
	252.40	FM	Fracture Multiple, from 07 to 11 o'clock, within 8 inch: YES	00:08:44	214, b	S 4
	256.00	AMH	Downstream Manhole, Survey Ends 1915-0726	00:09:16	216	

QSR	QMR	SPR	MPR	OPR	SPRI	MPRI	OPRI
4100	2112	4	4	8	4	1.33	2